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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,091

DATE: 03/19/2002

TIME: 14:53:33

Input Set : N:\Crf3\RULE60\09846091.raw
 Output Set: N:\CRF3\03192002\I846091.raw

1 <110> APPLICANT: HAYNES, Joel R.
 2 MACKLIN, Michael D.
 3 PAYNE, Lendon G.
 4 <120> TITLE OF INVENTION: NUCLEIC ACID IMMUNIZATION
 5 <130> FILE REFERENCE: APF40
 7 <140> CURRENT APPLICATION NUMBER: 09/846,091
 8 <141> CURRENT FILING DATE: 2001-04-30
 10 <150> PRIOR APPLICATION NUMBER: US/09/561,951
 11 <151> PRIOR FILING DATE: 2000-05-01
 13 <160> NUMBER OF SEQ ID NOS: 11
 14 <170> SOFTWARE: PatentIn Ver. 2.1
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 24
 18 <212> TYPE: PRT
 19 <213> ORGANISM: Influenza A virus
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 23 Cys Arg Cys Asn Gly Ser Ser Asp
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 26 <210> SEQ ID NO: 2
 27 <211> LENGTH: 24
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Influenza A virus
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 39 <213> ORGANISM: Influenza A virus
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 47 <211> LENGTH: 20
 48 <212> TYPE: DNA
 49 <213> ORGANISM: Artificial Sequence
 50 <220> FEATURE:

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75     agtgc                                           65
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78 <211> LENGTH: 28
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101 <212> TYPE: DNA
102 <213> ORGANISM: Influenza A/Kagoshima/10/95(H3N2)
103 <220> FEATURE:
104 <221> NAME/KEY: CDS

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110   tgc aga tgc aac ggt tca agt gac ccg ctt gtt gtt gct gcg agt atc   96
111   Cys Arg Cys Asn Gly Ser Ser Asp Pro Leu Val Val Ala Ala Ser Ile
112       20           25           30
113   att ggg atc ttg cac ttg ata ttg tgg att ttt gat cgt ctt ttt ttc   144
114   Ile Gly Ile Leu His Leu Ile Leu Trp Ile Phe Asp Arg Leu Phe Phe
115       35           40           45
116   aaa tgc atc tat cga ctc ttc aaa tac ggt ctg aaa aga ggg cct tct   192
117   Lys Cys Ile Tyr Arg Leu Phe Lys Tyr Gly Leu Lys Arg Gly Pro Ser
118       50           55           60
119   acg gaa gga gta cct gag tct atg agg gaa gaa tat cga aag gaa cag   240
120   Thr Glu Gly Val Pro Glu Ser Met Arg Glu Glu Tyr Arg Lys Glu Gln
121       65           70           75           80
122   cag aat gct gtg gat gct gac gac agt cat ttt gtc agc ata gag ctg   288
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126   Glu
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135   Cys Arg Cys Asn Gly Ser Ser Asp Pro Leu Val Val Ala Ala Ser Ile
136       20           25           30
137   Ile Gly Ile Leu His Leu Ile Leu Trp Ile Phe Asp Arg Leu Phe Phe
138       35           40           45
139   Lys Cys Ile Tyr Arg Leu Phe Lys Tyr Gly Leu Lys Arg Gly Pro Ser
140       50           55           60
141   Thr Glu Gly Val Pro Glu Ser Met Arg Glu Glu Tyr Arg Lys Glu Gln
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144       85           90           95
145   Glu
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148 <211> LENGTH: 4622
149 <212> TYPE: DNA
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151 <400> SEQUENCE: 11
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154   taggtggacc agttggtgat tttgaacttt tgctttgccg cggaacgggtc tgcgttgctg 180
155   ggaagatgcg tgatctgatc cttcaactca gcaaaagttc gatttattca acaaagccgc 240

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156  cgtcccggtca agtcagcgta atgctctgcc agtgttacaa ccaattaacc aattctgatt 300
157  agaaaaactc atcgagcatc aaatgaaact gcaattttatt catatcagga ttatcaatac 360
158  catatTTTTg aaaaagccgt ttctgtaatg aaggagaaaa ctccaccgagg cagttccata 420
159  ggatggcaag atcctgggtat cggctctgcga ttccgactcg tccaacatca atacaacctc 480
160  ttaatttccc ctcgtaaaaa ataaggttat caagtggaga atcaccatga gtgacgactg 540
161  aatccgggtga gaattggcaaa agcttatgca tttctttcca gacttggtca acaggccagc 600
162  cattacgctc gtcataaaaa tcaactcgcat caaccaaacc gttattcatt cgtgattgcg 660
163  cctgagcgag acgaaatacg cgatcgctgt taaaaggaca attacaaaca ggaatcgaat 720
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165  cttctaatac ctggaatgct gttttcccg ggtcgagtaac catgcatcat 840
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171  aagcagacag ttttattggt catgatgata tttttttatc ttgtgcaatg taacatcaga 1200
172  gattttgaga cacaacgtgg ctttcccccc cccccggca tgctgcagg tcgacataaa 1260
173  tcaatattgg ctattggcca ttgcatacgt tgtatctata tcataatatg tacatttata 1320
174  ttggctcatg tccaatatga ccgccatgtt gacattgatt attgactagt tattaatagt 1380
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206 ggcttgagct cacgctcttg tgagggacag aaatacaatc aggggcagta tatgaatact 3300
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